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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,786

04/18/2005

Martin J. Weinstein

PB0288

3882

22840 7590 04/08/2009
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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

04/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,786	Applicant(s) WEINSTEIN ET AL.	
	Examiner Krishnan S. Menon	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5, 11, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 11-15, 18 and 19 are pending as amended in the RCE of 3/27/09

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-15, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

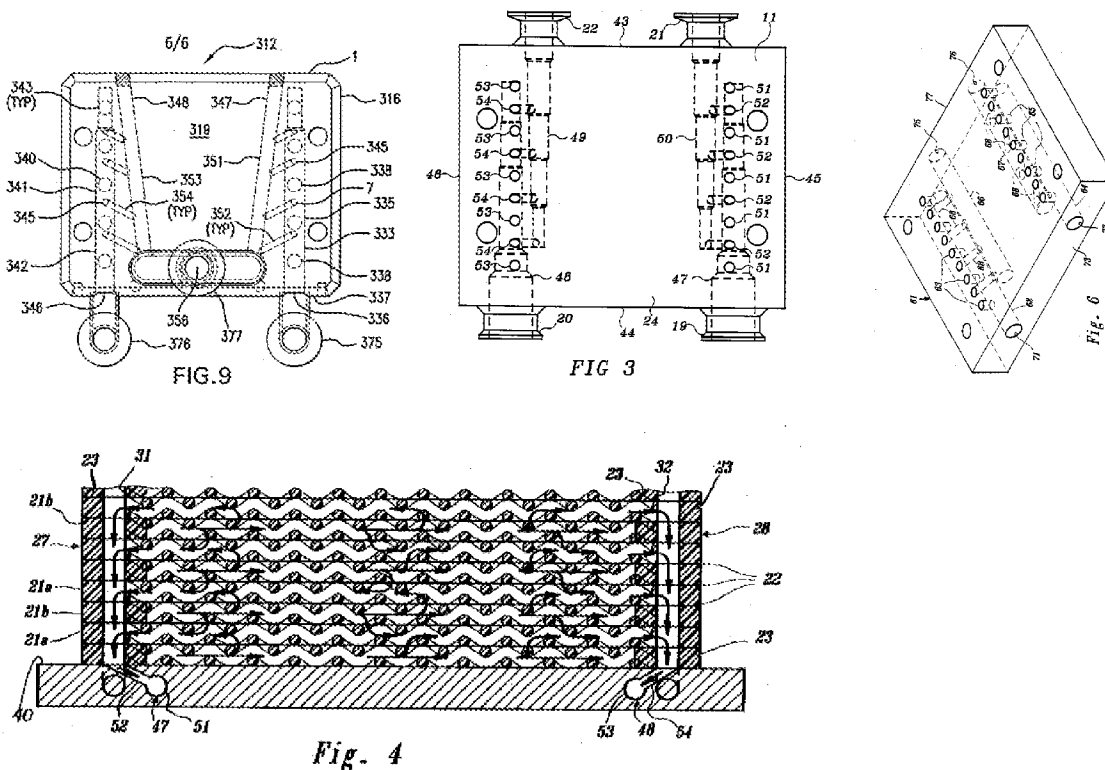
Claims 11 and 18 recite "wherein the source of fluid is configured to flow out a single outlet port". How the source of fluid could be so configured is not understood. For examination purpose, the Examiner assumes the "source of fluid" to mean the filtrate.

Also not understood is how the first and second transverse filtrate channels form acute angles that come together to provide a structural arrangement with an upper surface of the end plate. It will be helpful if applicant provides an explanation, citing the corresponding disclosure in the specification and parts in the corresponding drawings.

For examination, the transverse filtrate channels are assumed to have an acute downward angle with the horizontal plane as seen in fig 9, parts 352 and 254, marked (TYP). They join the longitudinal filtrate channels 351 and 353, which converge to port 356.

Claim Rejections - 35 USC § 103

1. Claims 11-15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Latour et al (US 4,849,102) and/or Friedman (US 4,715,955).



Applicant's figure 9, assumed to be best representing the claims in comparison with figure 3 of Latour and figure 6 of Friedman.

Friedman teaches a filtration housing with an end plate having parallel feed and retentate channels, and filtrate channels, wherein the filtrate channels have transverse portions, the transverse portions forming acute angles with the upper surface of the end

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plate. See fig 6 above, as well as fig 4 of the reference. Particularly, this reference teaches:

“As shown in the modified embodiment of FIG. 6, for example, an end plate 61 is provided with a feed channel 62 having five transverse portions 63, a retentate channel 64 having five transverse portions 65, and a pair of filtrate channels 66, 67 each having four transverse portions 68. The end plate 61 would be used in the same manner as described above for the end plate 13 but would accommodate an ultrafiltration module (not shown) having five feed passages, five retentate passages, and eight filtrate passages. An additional modification in the end plate 61 is that ends of the feed and retentate channels 62 and 64, respectively, terminate in ports 71 and 72 in one side wall 73 of the end plate 61 while the filtrate channels 66 and 67 terminate, respectively, in outlet ports 75 and 76 in an opposite end wall 77 of the end plate 61. Use of the end plate 61 would be desirable when fluid handling equipment would be most easily positioned on opposite sides of the ultrafiltration apparatus.” (column 5, lines 38-57)

And:

“As shown in FIG. 4, the transverse filtrate channel portions 52, 54 form acute angles with an upper surface 55 of the end plate 13. Outer ends of the longitudinal filtrate channel portions 51, 53 terminate, respectively, with outlet ports 56, 57 in the sidewall 37 of the end plate 13.” (Column 4, lines 19-24)

See the figure 4 reproduced above: channels (52,54) form declining acute angles so that the filtrate would drain down into the filtrate outlet channel

Latour teaches a filtration housing and cassette assembly (12, see figures), in which the housing comprises first and second parallel plates (11,13,14), plate 11 having

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feed inlet (19) and retentate outlet (20) channels at opposite edges, and filtrate channels (21,22) having first portions (49,50) and second transverse portions (connecting 49 to 54 and 50 to 52) as claimed. These channels communicate with the respective feed, retentate and filtrate channels of the cassettes. The plates are movable on frames to change the number of cassettes loaded as desired.

The teaching of the Latour reference differs from the claims in the 'acute' orientation of the transverse filtrate channels with respect to an upper surface of the first end plate. Friedman teaches the transverse filtrate channels as being at an acute angle with a face of the end plate, but this does not appear to be the "upper surface" as claimed. The [first] plate (11) of Latour is also a central plate (communication to the filter cassettes from both major surfaces), whereas the applicant depicts it as an end plate (communication to the cassettes only from one major surface). Latour refers to Friedman and teaches his design as an improvement over that of Friedman, who has the plate with inlet and outlet channels at and end. However, the "acute" orientation of the transverse filtrate channel is only an obvious design change in shape and/or orientation, which one of ordinary skill in the art is capable of; and are not patentable unless can be shown otherwise. Changes of size, shape, etc without special functional significance are not patentable. *Research Corp. v. Nasco Industries, Inc.*, 501 F2d 358; 182 USPQ 449 (CA 7), cert. denied 184 USPQ 193; 43 USLW 3359 (1974). Applicant has not demonstrated any criticality of having the acute angles in the transverse filtrate channels to overcome a prima facie case of obviousness.

Both the references do not teach "a single outlet" for the filtrate. However, converging the two longitudinal filtrate channels to a single outlet is not inventive, and within the skill of one of ordinary skill to design for convenience. Applicant has not provided any secondary evidence of patentability to overcome the prima facie case.

Response to Arguments

Applicant's arguments filed 3/27/09 have been fully considered but they are not persuasive.

Having the two longitudinal filtrate channels converging to a single outlet is not patentable. The claims are otherwise anticipated at least by Friedman.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/
Primary Examiner, Art Unit 1797